

CLAIMS

What is claimed is:

1. An inflatable sport ball having an internal air pressure, said ball comprising:
an internal pump attached to the ball, said pump including:
 - 5 a cylinder having an air outlet into the ball,
a valve attached to said air outlet regulating air flow from said cylinder into the ball,
a hollow piston positioned in said cylinder, said piston operable to draw ambient air from outside the ball into said cylinder and to force the air within said cylinder through said valve into the ball;
 - 10 an air pressure indicator positioned within said piston;
a needle extending from said piston toward said valve, said needle traversing said valve to connect said piston with the air pressure of the ball to position said air pressure indicator.
2. The sport ball as described in claim 1 further comprising:
means for actuating said piston from outside the ball, wherein said means for actuating said
15 piston comprise a piston rod attached to said piston and extending through an opening in the ball and movable between an extended position and an inserted position.
3. The sport ball described in claim 1 further comprising:
a recess in said piston;
a pair of flanges surrounding said piston proximate said recess; and
20 an adjustable O-ring intermediate said flanges and engaging said recess.
4. The sport ball described in claim 1, wherein said air pressure indicator comprises a gage piston and a gage puck connected to said gage piston.
5. The sport ball as described in claim 1 wherein said piston comprises a substantially clear polycarbonate material.
- 25 6. The sport ball as described in claim 1 wherein said piston comprises a translucent polycarbonate material.

7. The sport ball as described in claim 1 further comprising at least one pressure indicating line marked on said piston.
8. A method for measuring the air pressure of a sport ball using an internal pump comprising the steps of:
- 5 a) affixing the internal pump to the sport ball;
- b) pushing a button toward said sport ball;
- c) forcing a hollow piston connected to the button into a cylinder affixed to the sport ball;
- d) driving a needle from said hollow piston through a valve affixed to said cylinder to
- 10 connect the hollow piston with the interior area of the sport ball; and
- e) moving a pressure indicating device in said hollow piston according to the air pressure in the sport ball.
9. The method as described in claim 8, wherein step e further comprises the step of:
- forcing said pressure indicating device against a spring proximate a pressure indication line
- 15 marked on said hollow piston.
10. The method as described in claim 9 further comprising the steps of:
- drawing said button from the ball; and
- viewing the position of said pressure indicating device in said hollow piston.

11. An internal pump for measuring and controlling the internal air pressure of a sport ball, said internal pump comprising:
- a cylinder having an air outlet into the ball,
 - a valve attached to said air outlet regulating air flow from said cylinder into the ball,
 - 5 a hollow piston positioned in said cylinder, said piston operable to draw ambient air from outside the ball into said cylinder and to force the air within said cylinder through said valve into the ball;
 - means for monitoring the air pressure within the ball, said monitoring means positioned in said hollow piston;
 - 10 means for connecting said hollow piston with the internal area of the ball, said connecting means traversing said valve.
12. The sport ball as described in claim 11 further comprising:
- means for actuating said piston from outside said carcass, wherein said means for actuating said piston comprise a piston rod attached to said hollow piston and extending through an opening in
 - 15 the ball and movable between an extended position and an inserted position.
13. The sport ball described in claim 11 wherein said monitoring means comprises a ball.
14. The sport ball described in claim 11 wherein said monitoring means comprises a puck connected to a piston.
15. The sport ball described in claim 11 further comprising:
- 20 a recess in said hollow piston;
 - a pair of flanges surrounding said piston proximate said recess; and
 - an adjustable O-ring intermediate said flanges and engaging said recess.
16. The sport ball as described in claim 11 wherein said hollow piston comprises a substantially clear polycarbonate material.
- 25 17. The sport ball as described in claim 11 wherein said hollow piston comprises a translucent polycarbonate material.

18. The sport ball as described in claim 11 further comprising at least one pressure indicating line marked on said hollow piston.

19. The sport ball as described in claim 11 wherein said connecting means further comprises a needle.

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